

CLAIM AMENDMENTS

1. (Currently Amended) A ~~high-frequency~~ power amplifier comprising:
 - a first amplifier including
 - a first transistor for ~~performing~~ signal amplification,
 - a first two-terminal network for giving an open-circuit condition or a sufficiently large load ~~at to~~ an even-numbered ~~order~~ harmonic frequency of a signal frequency and giving a short-circuiting condition or a sufficiently small load ~~at to~~ an odd-numbered ~~order~~ harmonic frequency of the signal frequency, and which is provided at an output side of the first transistor,
 - a first input matching circuit for ~~performing~~ impedance matching ~~on~~ the signal frequency, and which is provided at an input side of the first transistor, and
 - a first output matching circuit for ~~performing~~ impedance matching ~~on~~ the signal frequency, and which is provided at the output side of the first transistor;
 - a second amplifier including
 - a second transistor for ~~performing~~ signal amplification,
 - a second two-terminal network for giving the short-circuiting condition or the sufficiently small load ~~at to~~ the even-numbered ~~order~~ harmonic frequency of the signal frequency and giving the open-circuit condition or the sufficiently large load ~~at to~~ the odd-numbered ~~order~~ harmonic frequency of the signal frequency, and which is provided at an output side of the second transistor,
 - a second input matching circuit for ~~performing~~ impedance matching ~~on~~ the signal frequency, and which is provided at an input side of the second transistor, and
 - a second output matching circuit for ~~performing~~ impedance matching ~~on~~ the signal frequency, and which is provided at the output side of the second transistor;
 - a power distribution circuit for distributing an input signal to the first transistor and the second transistor such that a phase difference between signals supplied to the first transistor and the second transistor reaches about 90 degrees, and which is connected between an input of the first amplifier and an input of the second amplifier;
 - a distributed line for controlling an output load of the first transistor through an impedance transformation based on an operating state of the second transistor, and which is connected between an output of the first amplifier and an output of the second amplifier; and
 - a bias circuit ~~which is provided~~ for biasing the first transistor and the second transistor.

2. (Currently Amended) ~~A high-frequency~~ The power amplifier according to Claim 1, further comprising a phase adjusting circuit for adjusting a phase difference between the signals supplied to the first amplifier and to the second amplifier.

3. (Currently Amended) ~~A high-frequency~~ The power amplifier according to Claim 1, wherein the bias circuit is provided between an output terminal of the first transistor and an output terminal of the second transistor and includes a filter for passing only a harmonic band frequency in the signal frequency between the output terminal of the first transistor and the output terminal of the second ~~terminal transistor~~, and a harmonic processing circuit for processing a higher harmonic wave generated in the first transistor and the second transistor.

4. (Currently Amended) ~~A high-frequency~~ The power amplifier according to Claim 1, wherein the bias circuit is provided between an input terminal of the first transistor and an input terminal of the second transistor and includes a filter for passing only a harmonic band frequency in the signal frequency between the input terminal of the first transistor and the input terminal of the second ~~terminal transistor~~, and a harmonic processing circuit for processing a higher harmonic wave generated in the first transistor and the second transistor.

5. (Currently Amended) ~~A high-frequency~~ The power amplifier according to Claim 3, wherein the bias circuit further includes an isolator.

6. (Currently Amended) ~~A high-frequency~~ The power amplifier according to Claim 4, wherein the bias circuit further includes an isolator.

7. (Currently Amended) ~~A high-frequency~~ The power amplifier according to Claim 3, further comprising:
a first directional coupler which is provided at a junction of the bias circuit and the first transistor; and
a second directional coupler which is provided at a junction of the bias circuit and the second transistor.

8. (Currently Amended) ~~A high-frequency~~ The power amplifier according to Claim 4, further comprising:
a first directional coupler which is provided at a junction of the bias circuit and the first transistor; and

In re Appln. of Seiki GOTOU
Application No. Unassigned

a second directional coupler which is provided at a junction of the bias circuit and the second transistor.